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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/997,210

11/28/2001

Hiroshi Uchimura

4078

26021

7590

10/01/2004

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EXAMINER

GLENN, KIMBERLY E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/997,210	<b>Applicant(s)</b> UCHIMURA ET AL.	
	<b>Examiner</b> Kimberly E Glenn	<b>Art Unit</b> 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 14 is/are allowed.
- 6) ☒ Claim(s) 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11 -13 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchimura JP411355010.

Uchimura disclose in figure 1 a band-pass filter provided with a pair of main conductor layers 22 and 23 sandwiching a dielectric substrate 21, a dielectric waveguide 26 and side wall through conductor groups (vias) 24 of two columns, which are formed by electrically connecting the main conductor layers 22 and 23 at distance under the half of a signal wavelength in a signal transmitting direction. The main conductor layers 22 and 23 are electrically connected to the side wall through conductor groups 24. The band-pass filter further comprises auxiliary conductor layers 25, which have a dielectric substrate place between the auxiliary conductor layers. The dielectric substrate 21 have side wall through conductor groups (vias) 24, which connected the auxiliary conductors to each other. The side wall through conductor groups (vias) are spaced at a distance under half of a signal wavelength. See abstract.

### ***Response to Arguments***

Applicant's arguments filed 7/12/04 have been fully considered but they are not persuasive. Applicant argues that the Uchimura JP411355010A reference does not disclose the filter having a  $\pi$  type structure. The claims states:

*"A dielectric waveguide type branching filter including a common dielectric waveguide and a dielectric waveguide type filter, the dielectric waveguide type filter comprising a pair of main conductive layers holding an upper and a lower surfaces of a dielectric there between, and groups of conductive vias arranged in the direction of signal transmission with a space of a distance less than  $1/2$  of a signal wavelength between the conductive vias and penetrating parts near side walls of a dielectric substrate thus to connect the pair of the main conductive layers with each other."*

Nothing recited in the claim, as written, states that the filter has a  $\pi$  type structure.

Uchimura JP 411355010A, disclose a band-pass filter provided with a pair of main conductor layers 22 and 23 sandwiching a dielectric substrate 21, a dielectric waveguide 26 and side wall through conductor groups (vias) 24 of two columns, which are formed by electrically connecting the main conductor layers 22 and 23 at distance under the half of a signal wavelength in a signal transmitting direction.

Therefore, the Uchimura reference reads on claims 11-13 as written.

### ***Allowable Subject Matter***

Claims 1-10 and 14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: With regards to claims 1-10 and 14, the prior art of record does not disclose or fairly teach a dielectric waveguide including a resonator, wherein the resonator being constituted dielectric vias formed of a dielectric having a higher dielectric constant than dielectric forming dielectric waveguide and provided in a region enclosed by the main conductive layers and the groups conductive vias.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

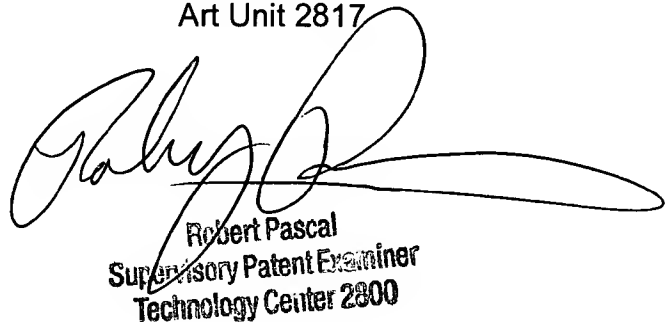
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn  
Examiner  
Art Unit 2817

keg



Robert Pascal  
Supervisory Patent Examiner  
Technology Center 2800